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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/565,957 | 01/26/2006 | Paolo Cuzzato | 1354300002US | 8299 |

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CONNOLLY BOVE LODGE & HUTZ LLP
1007 NORTH ORANGE STREET
P O BOX 2207
WILMINGTON, DE 19899

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| EXAMINER |
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NAZARIO GONZALEZ, PORFIRIO

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| ART UNIT | PAPER NUMBER |
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1621

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| MAIL DATE | DELIVERY MODE |
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11/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,957

Applicant(s)

CUZZATO ET AL.

Examiner

Porfirio Nazario-Gonzalez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the isomerization of 1,1,2-trifluoro-1,2-dichloroethane (A123a) to 1,1,1-trifluoro-2,2-dichloroethane (A123) in the vapor phase under a pressure of from 2 to 5 bar using AlF_3 as the isomerization catalyst, does not reasonably provide enablement for any other generic isomerization catalyst. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

1. For a rejection under 35 U.S.C. § 112, first paragraph the following factors must be considered. *In re Wands*, 8 USPQ2d 1400, 1404 (CAFC, 1988):

- 1) Breadth of the claims
- 2) Nature of the invention
- 3) State of the prior art
- 4) Level of ordinary skill in the art

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- 5) Level of predictability in the art
- 6) Amount of direction and guidance provided by the inventor
- 7) Existence of working examples
- 8) Quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The breath of the claim involves the use of a catalyst in the gas phase isomerization of 1,1,2-trifluoro-1,2-dichloroethane (A123a) to 1,1,1-trifluoro-2,2-dichloroethane (A123) at a pressure of 2-5 bar. The nature of the invention is in the field of heterogeneous catalysis.

The state of the art shows the use of pretreated Al_2O_3 or AlCl_3 materials in the isomerization of fluorochlorohydrocarbons at atmospheric pressure (1 bar). See, JP 53121710. The level of ordinary skill in the arts is high and limited to heterogeneous isomerization catalysts.

The predictability or lack thereof in the art refers to the ability of one skilled in the art to extrapolate the disclosed or known results to the claimed invention. The lower the predictability, the higher the direction and guidance that must be provided by applicant. In the instant invention the predictability is very low and consequently, the need for higher levels of direction and guidance by applicant. However, the amount of direction and guidance provided by applicant is limited to the use of an activated AlF_3 catalyst in the isomerization of 1,1,2-trifluoro-1,2-dichloroethane (A123a) to 1,1,1-trifluoro-2,2-dichloroethane (A123) at a pressure of 2-5 bar. See Example 14. No examples are provided for the isomerization of 1,1,2-trifluoro-1,2-dichloroethane (A123a) to 1,1,1-

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trifluoro-2,2-dichloroethane (A123) at a pressure of 2-5 bar with other catalyst materials. Considering the unpredictability of heterogeneous catalysis, particularly in isomerization reactions, the use of a single catalyst (AlF_3) would not be enough to extrapolate to other possible catalyst materials.

Therefore, the quantity of experimentation required to use the a generic isomerization catalyst in the claimed process, based on applicant's limited disclosure would be undue burden because one of ordinary skill in the art would have to perform a significant amount of experimentation to ascertain how other catalyst materials would behave with respect to the isomerization of of 1,1,2-trifluoro-1,2-dichloroethane (A123a) to 1,1,1-trifluoro-2,2-dichloroethane (A123) at a pressure of 2-5 bar.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, 7 and 10-13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,600,037, cited by Applicants. The '037 patent discloses the isomerization of 1,1,2-trifluoro-1,2-dichloroethane (A123a) to 1,1,1-trifluoro-2,2-dichloroethane (A123) at a temperature range of 180 °C to 400 °C by using AlF_3 as an isomerization catalyst. The '037 patent further discloses that the AlF_3 catalyst was pretreated (activated) with air at 400 °C for 3 hours and then for 2 hours with HF. See Example 3 and Table 3.

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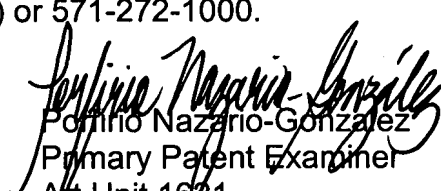
Allowable Subject Matter

6. Claims 4, 5, 8, 9 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Porfirio Nazario-Gonzalez whose telephone number is 571-272-0641. The examiner can normally be reached on Mon.-Fri. (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Porfirio Nazario-Gonzalez
Primary Patent Examiner
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November 16, 2007